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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,006	12/27/2000	Wolfgang von Deyn	47679	4682

2292 7590 03/04/2005

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EXAMINER

SHIAO, REI TSANG

ART UNIT	PAPER NUMBER
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1626

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,006

Applicant(s)

DEYN ET AL.

Examiner

Robert Shiao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on responses filed on 04/28, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8-11, 14, 16 and 21-36 is/are pending in the application.
- 4a) Of the above claim(s) 22, 23, 33 and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-11, 14, 16, 21, 24-32, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/14/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This application claims benefit of the foreign application:

GERMANY 19701446.1 with a filing date 01/17/1997. However, the certified copy of the instant priority document has not been filed, therefore, the foreign priority has not been granted. Applicants are requested to file the priority document to the Office.

2. Amendment of claims 1-2, and 32, cancellation of claims 5-7, 12-15, 17-20, and addition of claims 35-36 in the amendment filed on December 20, 2004, is acknowledged. No new matter is found. Claims 1-4, 8-11, 14, 16, and 21-36 are pending in the application.

Responses to Election/Restriction

3. Applicant's election with traverse of Group I claims 1-4, 8-11, 14, 16, 21, and 24-32, in part, in the reply filed on December 20, 2004, is acknowledged. The traversal is on the grounds that (1) Groups I-VII do not constitute independent or distinct inventions; (2) the Examiner does not establish an undue burden for searching and examining all of the restricted subject matter, and MPEP 806.05 is cited. This is not found persuasive, and the reasons are given, *infra*.

Status of the Claims

4. Claims 1-4, 8-11, 14, 16, and 21-36 are pending in the application. The scope of the invention of the elected subject matter is as follows:

Claims 1-4, 8-11, 14, 16, 21, 24-32, in part, drawn to compounds/compositions of formula (I), wherein the variable X represents CR¹⁰R¹¹ thereof, and variables R¹⁰ and

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R¹¹ are as defined in claim 1; the variable Y represents O, S, or NR¹² thereof, and the variable R¹² is as defined in claim 1; the variables R¹, R², R³, R⁴, R⁵, and R¹⁵ are as defined in claim 1.

The above mentioned withdrawn compounds which are withdrawn from consideration as being for non-elected subject matter differ materially in structure and composition from the compounds of the elected invention. The withdrawn compounds of formula (I) contain varying functional groups (i.e., heteroaryl or heterocycloalkyl of the variables X or Y) which differ from those of the elected invention Group I-VII, which are chemically recognized to differ in structure and function. This recognized chemical diversity of the functional groups can be seen by the various classification of these functional groups in the U.S. classification system, i.e., class 548 subclass 215(+) (oxazole), class 548 subclass 300.1(+) (diazole) of Group I; class 548 subclass (400+) (pyrroline) of Group II; class 548 subclass (240+) (isoxazole) of Group III; class 548 subclass (262.2+) (triazole) of Group IV; class 548 subclass (131+) (oxadiazole) of Group V, etc. Therefore, again, the compounds which are withdrawn from consideration as being for non-elected subject matter differ materially in structure and composition and have been restricted properly.

The Markush group set forth in the claims includes both independent and distinct inventions, and patentably distinct compounds (or species) within each invention. However, this application discloses and claims a plurality of patentably distinct inventions far too numerous to list individually. Moreover, each of these inventions contains a plurality of patentably distinct compounds, also far too numerous

to list individually. Moreover, the examiner must perform a commercial database search on the subject matter of each group in addition to a paper search, which is quite burdensome to the examiner.

Since the newly added claims 35-36 are commensurate with the scope of the invention, therefore, the invention claims 1-4, 8-11, 14, 16, 21, 24-32, and 35-36, in part, embraced in above elected subject matter, are prosecuted in the case. Claims 1-4, 8-11, 14, 16, 21, 24-32, and 35-36, in part, not embraced in above elected subject matter, and claims 22-23, 33-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention.

The requirement is still deemed proper and is therefore made **FINAL**.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

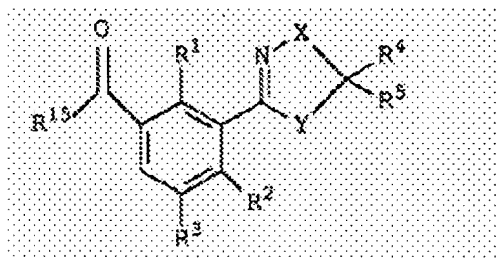
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Also see M.P.E.P. 2113.

6. Claims 1-4, 8-11, 14, 16, 21, 24-32, and 35-36 are rejected 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Adachi et al. WO 9741105, see CAS:127:346402.

Applicants claim a compound/compositions of formula (I),

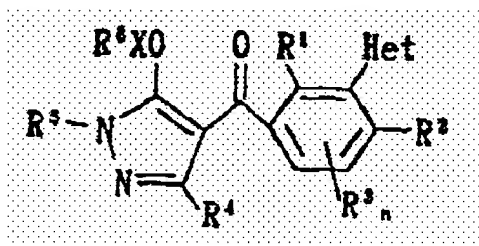


, and the compounds are agents for herbicides.

The instant compounds are found on the page 1-100 of the specification.

Determination of the scope and content of the prior art (MPEP §2141.01)

Adachi et al. disclose a compound of formula (I) as agents as herbicides,



, wherein the variable X represents SO₂ or

(CH₂)_mCO, the variable R⁶ represents optionally substituted phenyl; the variables R¹, R², R³, R⁴, and R⁵ independently represent hydrogen, alkyl, or halo; and the variable Het represents an optionally substituted saturated or unsaturated 5-membered hetrocyclic group, which contains one to four hetero-atoms selected from among N, O and S, i.e., oxazole, thiazole, or diazole, see CAS: 127:346402.

Determination of the difference between the prior art and the claims (MPEP §2141.02)

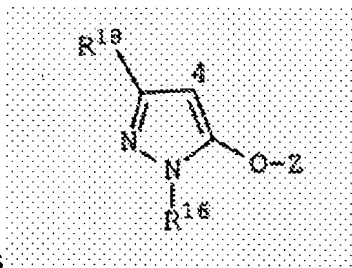
The difference between the instant claims and Adachi et al. is that the

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instant variable Z of formula (I) represents SO_2R_{17} , and R_{17} represents phenyl, while Adachi et al. represents SO_2 -phenyl or $(\text{CH}_2)_m\text{CO}$ -phenyl at the same position.

Finding of prima facie obviousness-rational and motivation (MPEP §2142-2143)

One having ordinary skill in the art would find the claims 1-4, 8-11, 14, 16, 21, 24-32, and 35-36 prima facie obvious because one would be motivated to employ the compounds of Adachi et al. to obtain instant compounds of formula (I), wherein the variable X represents $\text{CR}^{10}\text{R}^{11}$ thereof, and variables R^{10} and R^{11} are as defined in claim 1; the variable Y represents O, S, or NR^{12} thereof, and the variable R^{12} is as defined in claim 1; the variables R^1 , R^2 , R^3 , R^4 , and R^5 are as defined in claim 1;



R^{15} represents SO_2R_{17} , the variable Z represent SO_2R_{17} , and R_{17} represents phenyl, and variable R^{16} and R^{18} independently represents hydrogen or alkyl.

The motivation to make the claimed compounds derives from the expectation that the instant claimed compounds would possess similar activities, i.e., agents as herbicides, from the known Adachi et al. compounds to that which is claimed in the reference.

Double Patenting

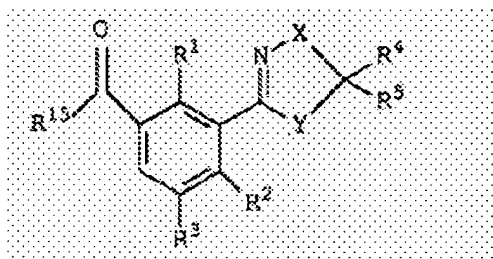
7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

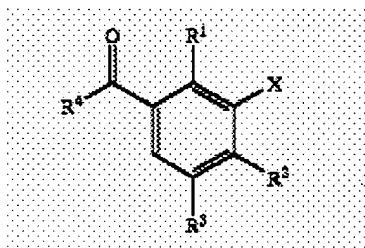
8. Claims 1-4, 8-11, 14, 16, 21, 24-32, and 35-36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-2 of Bratz et al. US 6,479,437. Although the conflicting claims are not identical, they are not patentably distinct from each other and reasons are as follows.

Applicants claim a compound/compositions of formula (I) as herbicides,

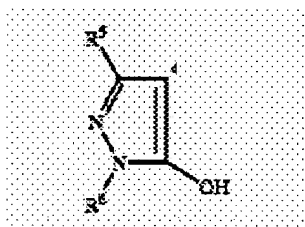


. The compounds are found on the pages 1-100 of the specification.

Bratz et al. claim a compound/compositions of formula (I) as agents herbicides,



, wherein the variable X represents thiazolyl; R₁, R₂, and R₃ independently represents hydrogen, halogen, or alkyl; the variable R₄ represents



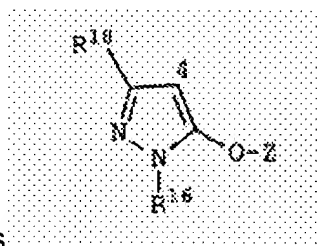
, the variable R₅ and R₆ independently represents hydrogen or alkyl, see columns 15-16. A number of examples have been specifically exemplified, see columns 2-3.

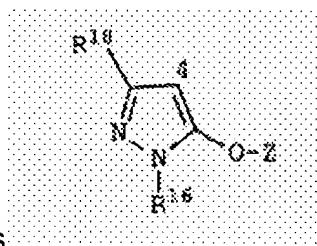
The difference between the instant claims and Bratz et al. is that the instant variable Z of formula (I) represents hydrogen or SO₂R₁₇, and R₁₇ represents alkyl or phenyl, while Bratz et al. represents hydrogen at the same position.

One having ordinary skill in the art would find the claims 1-4, 8-11, 14, 16, 21, 24-

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32, and 35-36 prima facie obvious because one would be motivated to employ the compounds/compositions of Bratz et al. to obtain instant compounds/compositions of formula (I), wherein the variable X represents $CR^{10}R^{11}$ thereof, and variables R^{10} and R^{11} are as defined in claim 1; the variable Y represents S thereof, and the variable R^{12} is as defined in claim 1; the variables R^1 , R^2 , R^3 , R^4 , and R^5 are as defined in claim 1;



R^{15} represents , the variable Z represent hydrogen, and variable R^{16} and R^{18} independently represents hydrogen or alkyl.

The motivation to make the claimed compounds derives from the expectation that the instant claimed compounds/compositions would possess similar activities, i.e., agents as herbicides, from the known Bratz et al. compounds to that which is claimed in the reference.

Objection


9. Claims 1-4, 8-11, 14, 16, 21, 24-32, and 35-36 are objected to as containing non-elected subject matter, i.e., the variable X represent O, S, NR^9 , or CO, or the variable Y represents CO of claims 24-25, and 30, etc. It is suggested that applicants amend the claims to the scope of the elected subject matter as defined on the pages 2-3 *supra*.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Shiao whose telephone number is (571) 272-0707.

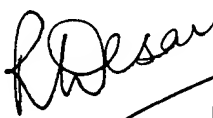
The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Robert Shiao, Ph.D.
Patent Examiner
Art Unit 1626

March 01, 2005

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